



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/009,909	02/20/2002	Christoph Schwemler	Mo6846/LeA 33,663	8764
157 7590 10/31/2007 BAYER MATERIAL SCIENCE LLC 100 BAYER ROAD PITTSBURGH, PA 15205			EXAMINER PHASGE, ARUN S	
			ART UNIT 1795	PAPER NUMBER
			MAIL DATE 10/31/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

MAILED  
OCT 31 2007  
GROUP 1700

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

Application Number: 10/009,909  
Filing Date: February 20, 2002  
Appellant(s): SCHWEMLER ET AL.

---

Aron Preis  
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 7/19/07 appealing from the Office action mailed 11/02/06.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

3,952,088	Brown et al.	4-1976
6,103,092	Silva	8-2000
JP 58-166987	Nanba et al	10-1983

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 10-12, 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (Brown), U.S. Patent 3,952,088 in view of Japanese Patent 51-166987.

The Brown patent discloses the claimed process for decomposing organic compounds present in wastewater comprising the steps of obtaining a waste water having common salt (col. 1, lines 14-23) and dissolved carbonate and treating the waste water with ozone with the claimed range of temperature, pressure, and time period (see col. 2 line 53 to col. 3, line 22). The exact composition of the water before and after treatment would have been within the purview of the ordinary artisan given the disclosure of the Brown patent. For example an example in Brown showing a reduction of 862 ppm organic carbon to 260 ppm organic carbon by ozone treatment alone (col. 4, example B) would render obvious a reduction of 10 ppm to less than 1 ppm by ozone.

The Brown patent uses the ozone with an alkaline pH, preferably around 13 (see col. 2, line 20-23), however, the use of the ozone alone while significantly reducing the organic carbon results in an increase of carbonate in the solution. The Japanese patent is cited to show that for wastewater containing organic material and carbonates, the pH range of 6-8 is optimal to prevent the disturbance by the carbonate radical (see Abstract, in particular the constitution).

Consequently, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the

disclosure of the Brown patent with the teachings of the Japanese patent, because the Japanese patent teaches the use of a lower pH to remove organic material from wastewater and prevent the reaction with carbonate radical.

Claims 13, 15-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown in view of the Japanese patent applied as above and further in view of Silva, U.S. Patent 6,103,092.

The Brown patent discloses that the solution obtained as a waste solution containing the sodium chloride and organic carbon is wasted rather than used in an electrolysis process (see col. 1, lines 14-23). The combination of Brown and Japanese patent fail to disclose the use of the water containing the sodium chloride used in an electrolytic cell to produce chlorine, said water having been purified by removal of carbonates and organic carbon, such as phenol. The Silva patent is cited to show that a sodium chloride containing solution that has been purified by the removal of organic contaminants, such as the phenols can be used to form chlorine by electrolysis (see col. 4, line 45 to col. 5, line 23).

Therefore, the invention as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the disclosure of the Brown patent with the teachings of the Silva patent, because the

Silva patent teaches that water that has been purified by the removal of organic contaminants can be used to produce chlorine by electrolysis.

**(10) Response to Argument**

Appellants argue that "nothing in the cited art disclosed pH value of less than 7 before treatment with ozone and higher than 7.5 after that treatment."

The Japanese patent teaches the use of a pH range between 6-8 to prevent the reaction with carbonate radical. Appellants have provided no unexpected results by the use of the narrower range. Additionally, to obtain a treated water within the disclosed range, which is stated to prevent the reaction with carbonate radical would also have been within the skill of the ordinary artisan.

Appellants further argue that "there is no motivation to combine the elements in the prior art" and "the record includes nothing to guide the art-skilled in determining which of the disclosed elements is to be included and which is to be ignored" which appears to be an attempt at arguing that the rejection is based on hindsight reconstruction.

The motivation is provided by the secondary reference, the Japanese patent, which teaches the use of a particular range of pH when trying to purify a carbonate and/or carbonic acid containing wastewater having an organic material

contaminant. Furthermore, the patent teaches that the disturbance by the carbonate radical is eliminated and that the organic materials are removed efficiently (see constitution).

Selection and application of pertinent prior art by an Examiner is his duty and is not hindsight reconstruction. *In re Winston*, 151 U.S.P.Q. 48; *Union Carbide vs. American Can. Corp.*, 220 U.S.P.Q. 584.

With regard to the Silva patent in combination with the Brown and Nanba references, applicants argue that the Silva patent does not "augment the combination of Brown and the '987 document to result in describing the invention as presently claimed.

The Brown patent merely suggests that the wastewater containing organic material is wasted rather than using the salt containing wastewater in an electrolysis process to produce chlorine. The Silva patent shows this use of wastewater that is from a source, such as the wastewater described in the specification on page 3 (see Silva col. 1, lines 13-22). The reference further discloses the use of the brine having been purified being used in an electrolysis process to produce chlorine (see col. 8, example 5).

Therefore, the Silva patent augments the Brown reference by teaching the use of purified brine used in the production of chlorine by electrolysis.

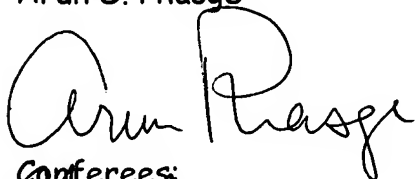
**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Arun S. Phasge



Conferees:



Nam X. Nguyen



Kathryn Gorgos